

REMARKS

Summary of the Office Action:

In the present application, claims 1-25 are pending. Claims 1-18 and 20-25 are rejected. Claim 19 is objected to.

Claim rejections under 35 U.S.C §112 and response:

Claims 4, 10, 18, 21, and 24 each recite the term "and/or" when claiming subject matter which applicant regards as the invention. Claims 4, 10, 18, 21, and 24 have been amended to overcome this rejection. Other claims reciting the "and/or" structure have been amended. These claim amendments have not been made to overcome prior art. Moreover, Applicant respectfully submits that no narrowing of claim scope has occurred as a result of these amendments.

Claim rejections under 35 U.S.C. §103(a) and response:

Hirschtick in view of Tong

Claims 1, 3, 6, 9, 10, 13-15, 17, 18, and 20-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hirschtick et al., U.S. Patent No. 5,815,154 ("*Hirschtick*") in view of Tong et al., "Artificial Intelligence in Engineering Design" ("*Tong*").

Claim 1 and 20 in part, recite the limitations of **automatically providing a first set of treatments for the failure within the first failed feature from which to select, said first set of treatments based at least in part on the failure within the first failed feature.**

The Examiner alleged that *Tong* teaches each and every one of the elements enumerated above. The Examiner cited Figure 14-11 of *Tong* and the accompanying caption related to a computer implemented design assistant in support of the Examiner's position. Respectfully, the Examiner's reading of *Tong* is incorrect.

Tong discloses a software implemented system for critiquing the aesthetic elements of a graphic design with the goal of beautifying drawings. This system assists artists in making their drawings more visually pleasing by applying well-known aesthetic design principles to the user's pattern. The user is able to obtain feedback regarding whether the design violates certain design principles. (*Tong* at Page 453, Paragraph 2) Once a drawing has been critiqued, the *Tong* system assists users in modifying designs to overcome the criticisms (*Tong* at Page 453, Paragraph 4).

Tong does not provide a treatment for a failure in a CAD assembly as claimed in the current invention. Instead, it performs an analysis of graphics designs, generating criticisms based on principles of a particular paradigm or style. Ultimately, the *Tong* system determines whether a graphic design is aesthetically pleasing and assists users in improving their designs. This is an undertaking that does not teach providing treatments for a failure in a CAD assembly.

Given the foregoing, it follows that *Tong* does not teach the required element of **automatically providing a first set of treatments for the failure within the first failed feature from which to select**. It further follows that *Tong* does not teach the required element of providing treatments based on the failure within the first failed feature in a CAD design.

Hirschtick is cited for disclosing identifying a failure within a first failed feature in a CAD assembly. However, to support a finding of obviousness, the cited references must teach every element of the disputed claim. Assuming, arguendo, *Hirschtick* does teach the identifying a failure within a first failed feature in a CAD assembly, *Hirschtick* does not cure the deficiency of *Tong* as cited above. That is, *Hirschtick* does not teach or suggest automatically providing a first set of treatments for the failure within the first failed feature from which to select. Since neither *Hirschtick* nor *Tong* teach the automatically providing a first set of treatments for the failure within the first failed feature from which to select, they cannot be relied upon to support the rejection of claims 1 or 20. Thus, for at least the reasons discussed above, Applicant respectfully submits that claims 1 and claim 20 are patentable over *Hirschtick* in view of *Tong*.

Claims 3, 6, 9, 10, 13-15, 17, 18 depend from independent claim 1 incorporating its elements. Thus, by virtue of at least their dependency on claim 1, claims 3, 6, 9, 10, 13-15, 17, 18 are patentable. In addition, claims 3, 6, 9, 10, 13-15, 17, 18 include numerous additional elements that render these claims further patentable over the asserted art.

Claims 21-25 depend from independent claim 20 incorporating its elements. Thus, by virtue of at least their dependency on claim 20, claims 21-25 are patentable. In addition, claims 21-25 include numerous additional elements that render these claims further patentable over the asserted art.

Hirschtick in view of Tong further in view of Brichta

Claims 4 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Hirschtick* in view of *Tong* in further view of *Brichta* et al., U.S. Patent No. 5,790,780 ("*Brichta*"). Applicant respectfully traverses this rejection.

Claims 4 and 5 depend from claim 1 thus inheriting the elements of claim 1. *Brichta* is cited for teaching storing a diagnosis object in persistent memory and retrieving a diagnosis object from persistent memory. Assuming, arguendo, *Brichta* does so teach, *Brichta* does not cure the deficiency of *Tong* and *Hirschtick* as cited above. That is, *Brichta* does not teach or suggest automatically providing a first set of treatments for the failure within the first failed feature from which to select. Thus, for at least the reasons discussed above, Applicant respectfully submits that claims 4 and 5 are patentable over *Hirschtick* in view of *Tong* further in view of *Brichta*.

Hirschtick in view of Tong further in view of Harding

Claims 7 and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Hirschtick* in view of *Tong* in further view of *Harding* et al., U.S. Patent No. 6,232,982 ("*Harding*"). Applicant respectfully traverses this rejection.

Claims 7 and 8 depend from claim 1 thus inheriting the elements of claim 1. *Harding* is cited for teaching various elements surrounding receiving a selection indicating the first failed feature. Assuming, arguendo, *Harding* does so teach, *Harding* does not cure the deficiency of *Tong* and *Hirschtick* as cited above. That is, *Harding* does not teach or suggest automatically providing a first set of treatments for the failure within the first failed feature from which to select. Thus, for at least the reasons discussed above, Applicant respectfully submits that claims 7 and 8 are patentable over *Hirschtick* in view of *Tong* further in view of *Harding*.

Hirschtick in view of Tong further in view of Barequet

Claims 11, 12, and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Hirschtick* in view of *Tong* in further view of Barequet et al. "Repairing CAD Models" ("*Barequet*"). Applicant respectfully traverses this rejection.

Claims 11, 12, and 16 depend from claim 1 thus inheriting the elements of claim 1. *Barequet* is cited for teaching various graphical user interface techniques related to the elements of claims 11, 12 and 16. Assuming, arguendo, *Barequet* does so teach, *Barequet* does not cure the deficiency of *Tong* and *Hirschtick* as cited above. That is, *Barequet* does not teach or suggest automatically providing a first set of treatments for the failure within the first failed feature from which to select. Thus, for at least the reasons discussed above, Applicant respectfully submits that claims 11, 12, and 16 are patentable over *Hirschtick* in view of *Tong* further in view of *Barequet*.

Krause in view of Tong

Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Krause et al., "Processing of CAD-Data -Conversion, Verification and Repair" ("*Krause*") in view of *Tong*. Applicant respectfully traverses this rejection.

Claim 2 depends from claim 1 thus inheriting the elements of claim 1. *Krause* is cited for identifying failures within a plurality of additional failed features. Assuming, *arguendo*, *Krause* does so teach, *Krause* does not cure the deficiency of *Tong* as cited above. That is, *Krause* does not teach or suggest automatically providing a first set of treatments for the failure within the first failed feature from which to select. Thus, for at least the reasons discussed above, Applicant respectfully submits that claim 2 is patentable over *Krause* in view of *Tong*.

Claim objection:

Claim 19 was objected to as being dependent upon a rejected base claim, but would otherwise be allowable if rewritten in independent form including all of the limitations of the base claim. However, as discussed above, Applicant respectfully submits that claim 1 is in condition for allowance. It follows that claim 19 is also in condition for allowance as a dependent claim of claim 1.


Conclusion:

In view of the foregoing, claims 1-25 are in condition of allowance. Early issuance of Notice of Allowance is respectfully requested. The Examiner is encouraged to

telephone the undersigned if there are any remaining questions of patentability, and a telephone interview would be helpful in resolving these questions.

Respectfully submitted,
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